Amendments to the Claims:

This listing of claims replaces all prior versions and listings of claims in the application:

Listing of Claims:

1. (Original) A process of producing aluminium and aluminium-containing materials from a solid aluminium-containing feed material that comprises:

(a) leaching the aluminium-containing feed material with a leach liquor and forming an aqueous solution containing aluminium ions;

(b) extracting aluminium ions from the aqueous solution by contacting the aqueous solution with an organic reagent and loading aluminium ions onto the organic reagent and forming an aluminium complex; and

(c) recovering aluminium or an aluminium-containing material from the aluminium complex.

2. (Currently Amended) The process ~~defined in~~ of claim 1 wherein the aluminium-containing material comprises any one or more of alumina, aluminium hydroxide, aluminium trihydrate, and aluminium chloride in any suitable solid form.

3. (Currently Amended) The process ~~defined in~~ of claim 1 ~~or claim 2~~ wherein the recovery step (c) comprises displacing aluminium ions from the aluminium complex by contacting the aluminium complex with an aqueous solution and thereafter recovering aluminium or the aluminium-containing material.

4. (Currently Amended) The process ~~defined in~~ of claim 3 wherein the solution used in step (c) is a more acidic solution than the initial leach liquor used in step (a) and has limited solubility for

aluminium and step (c) comprises displacing aluminium ions from the aluminium complex by precipitating the solid aluminium or the aluminium-containing material from the solution.

5. (Currently Amended) The process ~~defined in~~ of claim 4 wherein step (c) comprises recovering the precipitated solid aluminium or the aluminium-containing material from the solution.

6. (Currently Amended) The process ~~defined in~~ of claim 3 wherein the solution used in step (c) is an acidic solution and step (c) comprises displacing aluminium ions from the aluminium complex into solution.

7. (Currently Amended) The process ~~defined in~~ of claim 6 wherein the acidic solution is a hydrochloric acid solution.

8. (Currently Amended) The process ~~defined in~~ of claim 7 wherein the hydrochloric acid solution has a pH of 1-6.

9. (Currently Amended) The process ~~defined in any one~~ of claim 6 ~~to 8~~ wherein step (c) comprises recovering the solid aluminium or the aluminium-containing material from the solution by heating the solution and causing thermal dissociation to drive off water and hydrochloric acid in gaseous forms and producing alumina in a solid form.

10. (Currently Amended) The process ~~defined in~~ of claim 6 wherein step (c) comprises recovering the solid aluminium or the aluminium-containing material from the solution by transferring aluminium ions into an ionic liquid.

11. (Currently Amended) The process ~~defined in~~ of claim 10 comprises recovering aluminium from the ionic liquid.

12. (Currently Amended) The process ~~defined in~~ of claim 11 comprises recovering aluminium from the ionic liquid by applying a potential across an anode and a cathode positioned so that at least the cathode is in contact with the ionic liquid and depositing aluminium on the cathode.

13. (Currently Amended) The process ~~defined in any one of claims~~ of claim 10 ~~to 12~~ comprises transferring aluminium ions into the ionic liquid directly from the solution.

14. (Currently Amended) The process ~~defined in~~ of claim 13 wherein the ionic liquid is hydrophobic with a high affinity for aluminium and is stable in the presence of water.

15. (Currently Amended) The process ~~defined in any one of claims~~ of claim 10 ~~to 12~~ comprises transferring aluminium ions into the ionic liquid indirectly from the solution.

16. (Currently Amended) The process ~~defined in~~ of claim 15 comprises transferring aluminium ions from the solution contained in one compartment into the ionic liquid contained in another compartment via a membrane, diaphram or other suitable means that is permeable to aluminium ions and separates the compartments.

17. (Currently Amended) The process ~~defined in~~ of claim 16 wherein the driving force for the transfer of aluminium ions from the compartment containing the solution to the other compartment containing the ionic liquid is either by concentration gradient or by having an anode in the aqueous compartment and a cathode in the ionic liquid compartment.

18. (Currently Amended) The process ~~defined in~~ of claim 3 wherein step (c) comprises displacing aluminium ions from the aluminium complex by precipitating solid material, dissolving precipitated solid material in an ionic liquid directly or indirectly, and recovering the solid aluminium or aluminium-containing material from the ionic liquid.

19. (Currently Amended) The process ~~defined in~~ of claim 3 wherein step (c) comprises displacing the aluminium ions directly from the aluminium complex by transferring aluminium ions into an ionic liquid and recovering aluminium from the ionic liquid.

20. (Currently Amended) The process ~~defined in~~ of claim 19 comprises recovering aluminium from the ionic liquid by applying a potential across an anode and a cathode positioned so that at least the cathode is in contact with the ionic liquid and depositing aluminium on the cathode.

21. (Original) A process of producing aluminium and aluminium-containing materials from a solid aluminium-containing feed material that comprises:

(a) leaching the aluminium-containing feed material with a leach liquor and forming an aqueous solution containing aluminium ions;

(b) extracting aluminium ions from the aqueous solution by contacting the aqueous solution with an organic reagent and loading aluminium ions onto the organic reagent and forming an aluminium complex; and

(c) recovering aluminium from the aluminium complex by displacing aluminium ions from the aluminium complex into solution by contacting the aluminium complex with an aqueous solution, thereafter transferring aluminium ions into an ionic liquid, and thereafter recovering aluminium from the ionic liquid.

22. (Currently Amended) The process ~~defined in~~ of claim 21 comprises recovering aluminium from the ionic liquid by applying a potential across an anode and a cathode positioned so that at least the cathode is in contact with the ionic liquid and depositing aluminium on the cathode.

23. (Original) A process of producing aluminium and aluminium-containing materials from a solid aluminium-containing feed material that comprises:

(a) leaching the aluminium-containing feed material with a leach liquor and forming an aqueous solution containing aluminium ions;

(b) extracting aluminium ions from the aqueous solution by contacting the aqueous solution with an organic reagent and loading aluminium ions onto the organic reagent and forming an aluminium complex; and

(c) recovering aluminium from the aluminium complex by displacing aluminium ions from the aluminium complex by transferring aluminium ions into an ionic liquid and thereafter recovering aluminium from the ionic liquid.

24. (Currently Amended) The process ~~defined in~~ of claim 23 comprises recovering aluminium from the ionic liquid by applying a potential across an anode and a cathode positioned so that at least the cathode is in contact with the ionic liquid and depositing aluminium on the cathode.

25. (Currently Amended) An aluminium or aluminium-containing material produced by the process ~~defined in any one of the preceding claims~~ of claim 1.

26. (New) An aluminium or aluminium-containing material produced by the process of claim 21.

27. (New) An aluminium or aluminium-containing material produced by the process of claim 23.